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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,214	10/28/2003	Claus Pohan	32860-000644/US	2997

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HARNESS, DICKEY & PIERCE, P.L.C.
P.O.BOX 8910
RESTON, VA 20195

EXAMINER	
ZETTL, MARY E	

ART UNIT	PAPER NUMBER
2878	

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/694,214	POHAN, CLAUS
	Examiner	Art Unit
	Mary Zettl	2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2004 and 28 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,8,9,12,15,18,19 and 21-24* is/are rejected.

7)☒ Claim(s) *5,7,10,11,13,14,16,17,20 and 25-27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *March 11,2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

1. A minor grammatical informality exists in the Abstract, line 1. It is suggested that "detector is for" be changed to - - detector for - -.

Claim Objections

2. Claims 21-27 are objected to because of the following informalities: Claim 21 (page 12, line 26) states "mounted a on a frame", but should read - - mounted on a frame --. Appropriate correction is required. The balance of the claims are objected to for being dependent on an already objected claim.

3. Claim 24 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 23. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 8 recites the limitation "the flexible tube" in the only sentence of the claim. There is insufficient antecedent basis for this limitation in the claim. Appropriate modifications should be made.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 6, 9, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US Patent 5,248,885) in view of Lowe (EP 0302716 A1).

Regarding Claims 1 and 6, Sato teaches a detector for an X-Ray apparatus, (Figures 2-7) comprising: a plurality of detector modules (Figure 2), mounted aside one another on a frame (printed board; 3); wherein each of the detector modules, includes on its front face, a plurality of sensor elements for detection of an intensity of X-ray radiation (7) and a heating element (3), located on the rear face of the detector modules facing away from the sensor elements. Sato is silent about a means for holding a pressure-contact apparatus including a heating element. Lowe teaches an X-ray

detector including a heating element (electrical resistor; Figure 2, item 23; Column 3, lines 5-6) cemented to a mounting block using silver-loaded epoxy cement (Column 3, lines 9-11). At the time the invention was made it would have been obvious to a person of ordinary skill in the art to seal the entire length of the heating element of Sato to the printer board by means of silver-loaded epoxy cement as suggested by Lowe in order to ensure that the heating element is pressed uniformly against the rear face of the detector modules allowing the detector modules to be heated to a uniform temperature.

Regarding Claims 9, 18, and 19 Sato teaches the limitations set forth in Claim 6, however does not expressly disclose the use of a temperature sensor or thermocouple. Lowe teaches a temperature sensor (temperature sensitive device; Column 4, lines 17-20) for preventing the temperature of the detector from exceeding a predetermined value. At the time the invention was made, it would be obvious to a person of ordinary skill in the art, to incorporate into the invention of Sato a temperature sensor as taught by Lowe in order to prevent the temperature of the detector from exceeding a desirable level in order to ensure that the detector functions properly.

7. Claims 2, 3, 4, 15, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US Patent 5,248,885) in view of Lowe (EP 0302716 A1) and further in view of Vidmar et al. (US 4,845, 731).

Regarding Claim 2, Sato in view of Lowe teaches a detector according to the limitations set forth in Claim 1. Sato in view of Lowe teach a means for holding, however do not teach brackets as the means of holding. Vidmar teaches a pressure contact apparatus including silicone pressure members (Figure 9, item 160; Column 15,

line 21-23) and surface connection brackets (Figure 9, item 162; Column 15, lines 22-23). The use of brackets as a means for holding is well known in the art, as demonstrated by Vidmar. It would be obvious to a person of ordinary skill in the art to modify the pressure-contact apparatus in the invention of Sato in view of Lowe with the brackets as disclosed by Vidmar to ensure secure attachment of the pressure-contact apparatus.

Regarding Claims 3, 4, and 15 Sato in view of Lowe teach a detector according to the limitations set forth in Claims 1 and 2. Sato in view of Lowe do not disclose expressly the use of brackets. Vidmar teaches a pressure-contact apparatus with a recessed portion (Figure 9, item 163; Column 15, line 27) for insertion of the pressure-contact members. Vidmar further teaches brackets (Figure 9, item 162) and attachment elements (fasteners; Figure 9, item 164; Column 15, lines 23) for securing the apparatus. It would be obvious to one skilled in the art to modify the invention of Sato in view of Lowe by utilizing brackets to create a channel or a recess for the pressure contact apparatus so as to provide a means for holding and locating the pressure-contact member. Further, the use of brackets as a means for holding is well known in the art, as demonstrated by Vidmar. It would be obvious to a person of ordinary skill in the art to modify the pressure-contact apparatus in the invention of Sato in view of Lowe with the brackets as disclosed by Vidmar to ensure secure attachment of the pressure-contact apparatus.

Regarding Claims 21-23, Sato teaches a detector for an X-ray computer tomograph (Figures 2-7), comprising: a plurality of detector modules (Figure 2),

mounted on a frame, each of the detector modules including a plurality of sensor elements for detection of an intensity of incident X-ray Radiation (7) and a heating element (3) located on the detector modules facing away from the sensor elements. Lowe teaches an X-ray detector including a heating element (electrical resistor; Figure 2, item 23; Column 3, lines 5-6) cemented to a mounting block using silver-loaded epoxy cement (Column 3, lines 9-11). Vidmar further teaches a pressure-contact apparatus consisting of at least two brackets (Figure 9, item 162; Column 15, lines 22-23) forming a channel for insertion of a pressure-contact apparatus. At the time the invention was made, it would be obvious to one skilled in the art to combine the teachings of Lowe and Vidmar in order to modify the invention of Sato such that at least two brackets are mounted on a frame through use of attachment elements in order to form a channel for the insertion of a pressure-contact apparatus. The use of a pressure-contact apparatus ensures uniform contact between the heating apparatus and the detector modules so that the temperature of the detector modules is uniform. Further, the use of brackets is a common means for holding and locating components.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. (US Patent 5,248,885) in view of Lowe (EP 0302716 A1) as applied to Claim 1, and further in view of Takahashi et al. (US 5,103,092).

Sato in view of Lowe teach a detector according to the limitations set forth in Claim 1. Sato and Lowe do not expressly disclose a means for producing calibration tables. Takahashi teaches an X-ray radiation detecting method utilizing a radiation detection unit (Column 6, lines 63-65) comprising controlling the temperature of the

detector by utilizing a heater (Column 6, lines 66-69) and performing offset and sensitivity calibration (Column 7, lines 13-17) to provide projection and image data. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the invention of Sato by incorporating the pressure-contact apparatus as suggested by Lowe and further to produce calibration tables in the conventional manner as taught by Takahashi so that each sensor element can be calibrated in order to provide projection data in an effort to avoid image artifacts resulting from the variable sensitivity of the detector.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance:

9. Claims 5, 7, 10, 11, 13,14,16, 17, 20, and 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding Claims 5, 7,16, and 25-27 prior art fails to teach or make obvious a detector wherein the pressure-contact apparatus is an inflatable flexible tube.

Regarding Claim 10, prior art fails to teach a heating apparatus wherein a heating element is adhesively bonded onto an outer face of a flexible tube.

Regarding Claim 11, prior art fails to teach or make obvious a heating apparatus, wherein lines for connection of a heating element are routed away at one end of a flexible tube.

Regarding Claim 17, prior art fails to teach or make obvious a valve fitted to one end of a flexible tube.

Regarding Claim 13 prior art fails to teach or make obvious a method for production of calibration tables in which a pressure-contact apparatus is released and a heating apparatus is pulled out once the calibration tables have been produced.

Regarding Claim 14 and 20, prior art fails to teach or make obvious a method for production of calibration tables in which a pressure-contact apparatus includes a flexible tube, wherein the heating element is pressed into contact by inflation of the flexible tube.

10. Claim 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Prior art fails to teach or make obvious a valve fitted to one end of a flexible tube.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. US 6,133,572 – this reference teaches a connection support member connecting the support member to a heat sink member, a heater unit mounted on the connection support member and an infrared detector element mounted on the support member (Column 6, lines 46-50).

b. US 4,845,731 - this reference teaches a pressure-contact apparatus for maintaining contact between terminals on the surface of a motherboard and contact fingers comprising of a silicone pressure member (a round resistant silicone piece) and surface connection brackets (Column 15, lines 17-34).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary Zettl whose telephone number is (571) 272-6007. The examiner can normally be reached on M-F 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

mz

DAVID PORTA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800